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REMARKS

Applicant concurrently files herewith a petition and fee for a two (2) month extension of time.

Claims 1-15 are all the claims presently pending in the application. Claims 1-8 and 10-12 have been amended to more particularly define the invention. Claims 13-15 have been added to assure Applicant the degree of protection to which his invention entitles him.

It is noted that the claim amendments herein or later are not made to distinguish the invention over the prior art or narrow the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein or later should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 3 and 4 said rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogushi et al. (U.S. Patent No. 6,385,497) in view of Tonozuka et al. (U.S. Patent No. 5,650,940). Claim 8-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ogushi et al. in view of Tonozuka et al, and further in view of Crater et al. (U.S. Patent No. 5,805,442).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary aspect of the invention, as recited in claim 1, is directed to a remote control system for one or more semiconductor manufacturing apparatuses including a

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supervisory device which controls the one or more semiconductor manufacturing apparatuses, and a remote operation device that accesses the supervisory device through a communication line, wherein upon accessing said supervisory device, the remote operation device simultaneously displays the same screen as that displayed on the supervisory device, and enables the remote operation device to perform the same operations as those carried out by the supervisory device on the one or more semiconductor manufacturing apparatuses.

Another aspect of the present invention, as recited in claim 5, is directed to a remote control system for one or more semiconductor manufacturing apparatuses including a host operably connected to the at least one manufacturing apparatus, and a remote operation device including a communication element that accesses the host device by way of a communication line, wherein the host device is provided with an IP routing function for achieving remote control operation from the remote operation device, and a communication element having a call incoming function for receiving a call incoming from the communication line, and the host device performs user authentication when the remote operation device connects to the host device, wherein upon authentication, the remote operation device simultaneously displays the same screen as that displayed on the host device, permitting the remote operation device to remotely control and operate the host device.

Yet another aspect of the invention, as recited in claim 8, is directed to a remote control system for one or more semiconductor manufacturing apparatuses including a local area network system including a plurality of host devices each connected with one or more semiconductor manufacturing apparatuses, and a router connected with the host devices, and a remote operation device including a router that accesses the host devices by way of a

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communication line, wherein the host devices are each provided with an IP routing function for achieving remote control operation from the remote operation device, and a communication element having a call incoming function for receiving a call incoming from the communication line, and the host devices each perform user authentication when the remote operation device connects to the host devices, wherein the remote operation device thus authenticated can individually simultaneously display the same screen as that displayed on each of the host devices, permitting the remote operation device to remotely control and operate the host devices.

A further aspect of the present invention, as recited in claim 11, is directed to a remote control system for one or more semiconductor manufacturing apparatuses including a local area network system including a plurality of host devices each connected with at least one semiconductor manufacturing apparatus, and an access server connected with the host devices, and a plurality of remote operation devices each having a communication element capable of accessing the host devices by way of a communication network, wherein the host devices are each provided with an IP routing function for achieving remote control operation from each of the remote operation devices, and the host devices each serve to perform user authentication when each of the remote operation devices connects to the host devices, wherein each of the remote operation devices thus authenticated can individually simultaneously display the same screen as that displayed on each of the host devices, permitting the remote operation devices to remotely control and operate the host devices.

Conventionally, in manufacturing facilities, such as factories for manufacturing semiconductors, several manufacturing apparatuses are connected through serial cables to a

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terminal server, which in turn is connected to a host device, and thereby collectively constitute a local area network (LAN). Generally, the configuration results in a closed network and permits communication only between the various elements of the LAN. As such, the host device in such a network does not include the necessary drivers, software, or hardware necessary for allowing connection with a remote device. Consequently, the host device cannot communicate with remote devices, and thus remote control operation of the host device is not possible. (See Application at page 1, lines 19-28 and page 2, lines 1-16)

The claimed invention, on the other hand, provides a remote control system for one or more semiconductor manufacturing apparatuses including a remote operation device capable of accessing a supervisory device through a communication line, wherein the remote operation device simultaneously displays the same screen as that displayed on a supervisory (or host) device, and enables the remote operation device to perform the same operations as those carried out by the supervisory device. In this manner, a remote operation device located remotely from the manufacturing plant is able to connect with the supervisory device, and, upon connection, simultaneously display the same screen as that of the supervisory device and remotely operate and control the manufacturing apparatuses by way of the supervisory device. (See Application at page 3, lines 7-20)

II. THE 35 USC § 112, SECOND PARAGRAPH REJECTION

Claims 3 and 4 stand rejected under 35 U.S.C. §112, second paragraph. The claims have been amended, above, to overcome this rejection. Specifically, the claims have been amended to more particularly define the invention.

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In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. THE PRIOR ART REJECTION

A. The Ogushi et al. Reference

Ogushi et al. discloses a remote maintenance system for maintaining an industrial equipment installed at a remote location. (See Ogushi et al. at column 1, lines 5-7)

However, the Examiner concedes the Ogushi et al. does not teach or suggest that the remote operation device displays the same screen as that displayed in the supervisory (or host) device, as in the claimed invention.

B. The Tonozyuka et al. Reference

The Examiner alleges that Ogushi et al. would have been combined with Tonozyuka et al. to form the invention of claims 1-7. However, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Tonozyuka et al. discloses a process monitoring system capable of notifying the occurrence of the abnormality in the process to be monitored and providing the information concerning the abnormality to the supervising personnel located at a remote location from the central monitoring room. (Tonozyuka et al. at Abstract)

Applicant respectfully submits that these references would not have been combined as alleged by the Examiner. Indeed, no person of ordinary skill in the art would have considered

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combining these references, absent impermissible hindsight.

In fact, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, contrary to the Examiner's allegations, none of these references teaches or suggests their combination.

Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Further, even if combined, the claimed invention still would not have been taught or suggested. As noted above, the Examiner concedes that Ogushi et al. fails to disclose that the remote operation device displays the same screen as that displayed in the supervisory (or host) device, let alone that the remote operation device simultaneously displays the same screen as that displayed on the supervisory (or host) device, as in the claimed invention. Rather, the Examiner attempts to rely on column 2, lines 26-37 and column 4, lines 10-35 of Tonozuka et al. to make up for the deficiencies of Ogushi et al.

However, this feature is not taught or suggested by Tonozuka et al. In fact, nowhere do the cited passages teach or suggest that the remote operation device simultaneously displays the same screen as that displayed on the host device, permitting the remote operation device to remotely control and operate the host device.

Rather, Tonozuka et al. discloses a portable monitoring device connected to the central monitoring device through a data transmission path for receiving a notification of an occurrence of abnormality output by the central monitoring device. (See Tonozuka et al. at column 2, lines 20-37) In Tonozuka et al., when an occurrence of abnormality is detected in

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the monitored process, information concerning that occurrence is temporarily stored until an access is made from the portable monitoring device. (See Tonozuka et al. at column 5, lines 18-31) When an access is made, the stored information concerning the occurrence is transmitted to the portable monitoring device through the data transmission path. (See Tonozuka et al. at column 5, lines 42-48)

Regarding the display of information, Tonozuka et al. indicates that information received by the portable monitoring device from the central monitoring device is processed to determine the information to be given to the supervising personnel, such that the information to be given is displayed on the display unit and controlled by the display control unit. (Tonozuka et al. at column 5, lines 50-62)

Indeed, Tonozuka et al. actually makes no reference or suggestion to the remote operation device simultaneously displaying the same screen as that displayed on a supervisory (or host) device and enabling the remote operation device to perform the same operations as those carried out by the supervisory device.

This feature of the claimed invention provides that the remote operation device simultaneously displays the same screen as that displayed by the supervisory device and enables the same operations as those carried out by the supervisory device. In other words, “the CRT of the remote operation device L displays the same screen as that displayed on the CRT of the host device H, whereby it becomes possible for the operator to carry out the same operations as in the host device H.” (See Application at page 10, lines 10-14) (Emphasis added)

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In this manner, the present invention provides several exemplary superior effects. In particular, the same operations as taken in the trouble procedure of the semiconductor manufacturing apparatus generated at the place of introduction of the system on the semiconductor manufacturing apparatus side (customer side) can be carried out and monitored by a device maker or the like on the remote operation device L side. Further, by displaying the contents of use and the operations in the place of introduction of the system on the semiconductor manufacturing apparatus side (customer side) simultaneously at a remote location on the remote operation device L side, it is possible to monitor problems in operation and situations, in which trouble has occurred, at a device maker's factory. (See Application at page 17, lines 12-25)

Again, nothing in the Ogushi et al. or Tonozuka et al. discloses or suggests the above characteristics of the present invention.

Further, the Examiner has stated that it would have been obvious to those skilled in the art to combine Ogushi et al. and Tonozuka et al. to achieve the present invention.

However, since the CRT display device 130 of Tonozuka et al. is equipped by the central monitoring device 120, the size of the device 130 is larger than that of the portable monitoring device 170 (See Tonozuka et al. at column 4, lines 44-47). Therefore, the size of the information matters displayed by the CRT display device 130 must be larger than that displayed by the central monitoring device 120.

Therefore, in Tonozuka et al., the remote operation device (portable monitoring device 170) does not simultaneously display the same screen as that displayed in the supervisory device (central monitoring device 120) and does not enable the same operations

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as those carried out by the supervisory device.

Indeed, Tonozuka et al. does not even recognize the desirability or benefit of the remote operation device simultaneously displaying the same screen as that displayed on a supervisory (or host) device and enabling the remote operation device to perform the same operations as those carried out by the supervisory device. Therefore, Tonozuka et al. clearly does not make up for the deficiencies of Ogushi et al.

As for claim 2, the statement of the Examiner is incorrect. In the present invention, a host authorizes a remote operation device. (See Application at page 10, lines 1-15)

In light of the above, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the invention of claims 1-7. Therefore, the Examiner is respectfully requested to withdraw this rejection.

C. The Crater et al. Reference

The Examiner alleges that Ogushi et al. would have been combined with Tonozuka et al. and Crater et al. to form the invention of claims 8-12. However, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Crater et al. discloses an integrated control system comprising one or more controllers each equipped to perform a control function and to gather data (ordinarily from sensors) relevant to the control function. (Crater et al. at Abstract)

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Applicant respectfully submits that these references would not have been combined as alleged by the Examiner. Indeed, no person of ordinary skill in the art would have considered combining these references, absent impermissible hindsight.

In fact, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, contrary to the Examiner's allegations, none of these references teach or suggest their combination.

Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

The Examiner concedes that Ogushi et al. fails to disclose that the remote operation device displays the same screen as that displayed in the supervisory (or host) device, as in the claimed invention, and further fails to disclose the use of a router as a communication element, as recited in claims 8-12. Rather, the Examiner attempts to rely on Tonozuka et al. and Crater et al. to make up for the deficiencies of Ogushi et al.

However, Crater et al. does not make up for the deficiencies of Ogushi et al. and Tonozuka et al. described above. Neither Ogushi et al. nor Tonozuka et al., nor Crater et al., nor any combination thereof, teaches or suggests the remote operation device simultaneously displaying the same screen as that displayed on a host device and enabling the remote operation device to perform the same operations as those carried out by the host device, as in claims 8-12.

Thus, even assuming arguendo, that Crater et al. teaches the use of a router, as alleged by the Examiner, nowhere does Crater et al. teach or suggest the remote operation device

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simultaneously displaying the same screen as that displayed on a host device and enabling the remote operation device to perform the same operations as those carried out by the host device, as in the claimed invention.

Indeed, Crater et al. does not even recognize the desirability or benefit of the remote operation device simultaneously displaying the same screen as that displayed on a supervisory (or host) device and enabling the remote operation device to perform the same operations as those carried out by the supervisory device. Therefore, Crater et al. clearly does not make up for the deficiencies of Ogushi et al. and Tonozuka et al.

In light of the above, Applicant submits that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the invention of claims 8-12. Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. CONCLUSION

The title of the Abstract has been amended to correct the typographical error therein and to overcome the Examiner's objection thereto.

In view of the foregoing, Applicant submits that claims 1-15, all the claims presently pending in the application, are patentably distinct over the prior art of record and are allowable, and that the application is in condition for allowance. Such action would be appreciated.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned attorney at the local telephone number

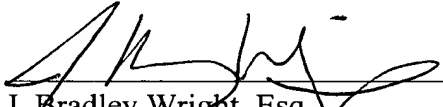
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listed below to discuss any other changes deemed necessary for allowance in a telephonic or personal interview.

To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. The Commissioner is authorized to charge any deficiency in fees, including extension of time fees, or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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